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ABSTRACT

Indian educational policy is based on the Gandhian philosophy that personality development and social transformation result from education based on Socially Useful Productive Work; that is, meaningful manual work resulting in goods or services useful to the community. Decentralized work programs plus a core curriculum are basic to secondary education. They are divided into two tracks--preparation for advanced education and a Vocational Spectrum, which emphasizes rural, agricultural, and related vocations. The Vocational Spectrum curriculum consists of language study; foundation courses in self-development, history, and economics; and vocational electives. Despite 1978 recommendations, limited work-experience programs exist in just 41,699 (7%) Indian schools. Only 22% of those schools have adequate equipment: 24% have work-experience teachers. Craft education exists in 30% of all schools, although only 3.5% have adequate equipment. Just .91% of all schools have work-experience or craft workrooms. Programs such as Lok Bharati, established to regenerate rural life with culturally compatible education; the Rural Higher Education Institute, designed to employ research results in villages; the Package Plan for Rural Development through Education, to improve educational relevance in rural areas; and the Rural University Project, to integrate rural education and rural development, successfully employ Socially Useful Productive Work policies. (SB)

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COMBINING EDUCATION AND WORK

Experiences in Asia and Oceania

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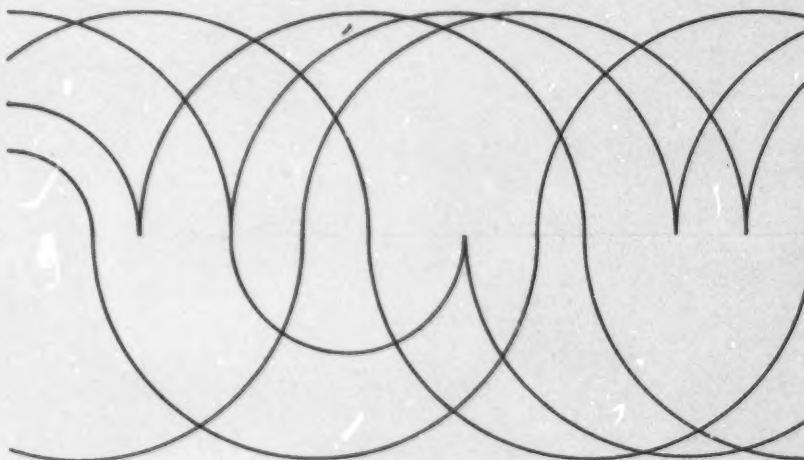
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COMBINING EDUCATION AND WORK

Experiences in Asia and Oceania

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PREFACE

Many countries in Asia and Oceania, as in other regions of the world, are engaged in reorienting their education systems. A basic concern underlying these efforts is to make education functional and relevant to the needs of the individual and of the society. It is increasingly felt that the education systems tend to get isolated from the larger social, cultural and development goals of the society. This isolation is engendered when the process of learning is separated from the context of action and work, and is nowhere as marked as in the failure of education to provide children and youth with an active comprehension of the world of work.

The response to the problem is reflected in a variety of programmes underway in several countries of Asia and Oceania. Considering the importance of the issue, the Fourth Regional Conference of Ministers of Education and Those Responsible for Economic Planning in Asia and Oceania (24 July - 1 August 1978, Colombo) has "Interlinking of Education and Productive Work" as one of the major themes of the Conference.

The country studies presented in the present series were received in response to Unesco's request to the Member States. By the time of going to the press, studies from twelve countries were received and they comprise the present series being issued on the occasion of the Fourth Regional Conference. The assistance of Unesco National Commissions in these countries in having the studies prepared and of the organizations and scholars who have been responsible for them is gratefully acknowledged. These studies cover a wide spectrum of experiences, ranging from experimental projects to comprehensive, system-wide programmes, and detailed descriptions are offered of one or more projects in actual operation. It is hoped to add to the series as more country studies become available.

Opinions expressed in this publication are those of the author and do not necessarily represent the views of Unesco.

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In India a series of national committees established by the Government of India have very recently examined various aspects of combining education and productive work in the Indian context. The present report for India brings together in Part I abstracts from the reports of the following Committees:

1. India. Ministry of Education and Social Welfare. *Work experience in schools; Third All India Educational Survey*. New Delhi, 1977. 76 p.
2. India. National Review Committee on Higher Secondary Education with Special Reference to Vocationalisation. *Learning to do towards a learning and working society; report*. New Delhi, Ministry of Education and Social Welfare, 1978. 60 p.
3. India. Review Committee on the Curriculum for the Ten-Year School. *Report ... (including syllabus frame)*. New Delhi, Ministry of Education and Social Welfare, 1977. 178 p.
4. India. Working Group on Vocationalization. *Report*. New Delhi, Ministry of Education and Social Welfare, 1978. 35 p.

PART I

A. Background¹

The Government of India appointed an Education Commission in 1964, under the chairmanship of Dr. D.S. Kothari to re-examine the entire educational system of the country keeping in view the national goals, improvement of quality and standard of education. The Kothari Commission considered the undesirable effects of uncontrolled admissions to the universities on the one hand and the resulting unemployment problem of the graduates on the other. It came to the firm conclusion that for majority of the occupations which the university graduates seek, the university degrees are not necessary and those jobs can be competently performed by well trained higher secondary students. Therefore, the Commission suggested that at the higher secondary stage there need be two distinctive streams: one preparing students for advanced education in the universities and the professional colleges and the other preparing for a variety of occupations immediately after completion of vocational studies which fit them into those vocations. In keeping with this recommendation the Commission suggested that for college preparatory general education courses the duration may be two years and the duration of studies and training for the vocational stream may range from one to three years or more. Given the proper planning, cooperation, coordination and implementation of the scheme, the Commission felt, it should be possible to divert at least 50 per cent of the students who successfully complete 10 year education to the vocational stream thus reducing the pressure on the universities on the one hand and preparing the students for employment including self-employment on the other. For a majority of vocational higher secondary students it would be a terminal stage in a sense although further educational facilities should be made available on a large scale so that those in jobs may benefit through part-time or evening studies.

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1. India. Working Group on Vocationalisation. *Report*. New Delhi, Ministry of Education & Social Welfare, 1978. 35 p.

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The National Policy of Education Resolution (1968) agrees with these recommendations of the Education Commission on vocational education. To quote:

There is need to increase facilities for technical and vocational education at secondary stage. Provisions of facilities for secondary and vocational education should conform particularly to requirements of the developing economy and real employment opportunities. Such linkage is necessary to make technical and vocational education at the secondary stage effectively terminal. The facilities for technical and vocational education should be suitably diversified to cover a large number of fields such as agriculture, industry, trade and commerce, medicine and public health, home management, arts and crafts and secretarial training.

The Central Advisory Board of Education, which is the highest body concerned with educational policy in the country, has also been exercised about this problem. While deliberating at its 37th Session held in November 1974, the Board observed that the amount of Rs. 10 crores provided in the draft Central Plan for the introduction of vocational courses at the higher secondary stage was inadequate and recommended that the provision should be substantially increased. The Board also observed that the new courses should be started after taking into account the existing facilities to meet the demand for middle level persons in the concerned district/State. They also suggested that the National Council of Educational Research and Training may work out model curricula and syllabi for such courses and provide guidelines to the State Governments.

The Central Advisory Board of Education at its 38th meeting held in November 1975, while noting with satisfaction the adoption of the educational pattern of 10+2+3 by most of the State Governments, deemed it necessary to stress the crucial importance of the 2 year stage between the school and university stages of education. It reiterated that this stage should be regarded not merely as college preparatory but as a period for preparing an increasingly larger number of school leavers for different vocations in life. The Board was also of the view that guidance and financial assistance by Central Government would enable State Governments to take quick and effective action in this direction and recommended the same.

Socially useful productive work

The Conference of Ministers of Education of the States and Union Territories held at New Delhi in August, 1977 recommended that the new pattern (10+2) be implemented all over the country before the end of the Sixth Plan. It also urged reorganization of higher secondary education, especially its vocationalization, by providing for suitable internal restructuring and modification of content and by developing strong links between education and the various development departments such as industry and commerce, agriculture, health and community development.

B. Socially Useful Productive Work²

1. The framework

Central place in curriculum

A review of the present position of the system of education reveals that it is still predominantly bookish in character and generally irrelevant to the needs of society.

The National System of Education as conceived by our leaders during the national movement for freedom and as propounded by Mahatma Gandhi has its genesis in work-based education. Gandhiji was against education leading to the search for white-collared jobs. He was of the opinion that if education is based on *Socially Useful Productive Work*, it would be an instrument for personality development and social transformation.

After Independence, a number of committees and commissions have been appointed to recommend changes in the system of education. All of them have expressed their appreciation of the Gandhian philosophy of Basic Education as the best solution for our educational problems. It may be mentioned here that although few in number, some Gandhian voluntary organizations have successfully implemented educational programmes based on this philosophy. Tradition, however, dies hard and the system of education continues to be bookish in character and divorced from the needs of society. *Socially Useful Productive Work* must, therefore,

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2. India. Review Committee on the Curriculum for the Ten-Year School. *Report ... (including syllabus frame)*. New Delhi, Ministry of Education & Social Welfare, 1977. 178 p.

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be given a central place in the curriculum at all stages of school education and the content of the academic subjects should be related to it, as far as possible.

The concept

Socially Useful Productive Work may be described as purposive, meaningful, manual work resulting in either goods or services which are useful to the community. Purposive, productive work and services related to the needs of the child and the community will prove meaningful to the learner. Such work must not be performed mechanically, but must include planning, analysis and detailed preparation, at every stage, so that it is educational in essence. Adoption of improved tools and material, where available, and the adoption of modern techniques will lead to an appreciation of the needs of a progressive society, based on technology.

It will be recalled that programmes of *Work Experience* were introduced as a result of the recommendations of the Kothari Commission with the objective of relating education to productivity. These programmes, however, lacked the component of social usefulness and, in practice, were not even casually correlated to other subject areas.

The purpose of demarcating a distinct curricular area as *Socially Useful Productive Work* is to emphasize the principle that education should be work-centred, as the concept of *Socially Useful Productive Work* is to be developed in the light of the Gandhian philosophy of Basic Education, in and through work.

Aim

The aim of this curricular area is to provide children with opportunities of participating in social and economic activities inside and outside the classroom, enabling them to understand scientific principles and processes involved in different types of work and in the setting in which they are found in the physical and social environment.

Criterion for selection of activities

The criterion for selection of activities should, thus, be that the work involved is *productive, educative and socially useful*. It is felt that if *Socially Useful Productive Work* is given a central and dominant place in the curriculum the gap between work and education will be

Socially useful productive work

reduced, the school will not remain isolated from the community and the gulf that divides the affluent from the weaker and poorer sections of the community will be bridged. Such a scheme will provide equality of opportunity for working and learning to all children irrespective of caste, creed, sex and economic status.

It is unfortunate that those who receive education migrate from the villages to the towns, deserting the community which had nurtured them and spent money on their education. A cleavage is thus created between the so-called educated and the rural masses, resulting in lack of harmony, where previously there was community of outlook. Those who have been thus educated are soon disenchanted as education brings unemployment. A paradoxical situation arises in that national resources are spent on their education only to help them join the ranks of the unemployed.

Social service

The component of Social Service in the curriculum is allied to *Socially Useful Productive Work*. For example, when children participate in an environmental cleanliness programme by way of social service, they can simultaneously prepare compost pits for manure. Similarly, if children conduct surveys of population, habitations or cattle, they can use the information for planning programmes for child-care and sanitation. During the harvesting season when the entire village is under pressure of intensive work, the schools, instead of remaining in isolation, can render valuable help.

Help from and to other agencies

Activities under *Socially Useful Productive Work* must not be confined to the four walls of the school, nor can they be provided by the teacher only. Programmes should, therefore, be so planned and implemented that the local community, community development organizations and governmental agencies participate in them and cooperate with the school. For example, no school can, by itself achieve effective results in the environmental cleanliness programme unless the village panchayat extends full cooperation and support to the school. In fact, many governmental and social organizations such as Khadi and Village Industries Commission, All India Handicrafts Board, Harijan Kalyan Samiti do render valuable help to the community. If

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their programmes can include participation by school children, they will be introduced to activities in which they will realize that they are cooperating with adults.

Decentralization

The planning for *Socially Useful Productive Work* should be decentralized as far as possible. The Central and State agencies should prepare model programmes which will serve as specimens for developing programmes by local institutions. District, *taluqa* and village level committees should be set up by including representatives from various departments and organizations. These committees should provide plans and programmes to the schools well in advance; these programmes should be reviewed from time to time. The committees should also consider the feasibility of making provision for the supply of raw material and the sale of finished products.

Need for core programmes

Depending upon the needs and facilities available, the activities pertaining to *Socially Useful Productive Work* will differ from school to school.

But it should be possible to identify common *core* programmes, which should be undertaken by all schools. The overall programmes should be so designed as to involve regular and universal participation of the children throughout the year.

Productive work and services, where possible, should result in remuneration in kind or cash where possible; this will develop attitudes of self-reliance.

2. Objectives

The objectives of *Socially Useful Productive Work* will be to:

- a. prepare pupils to practise and perform manual work individually and collectively;
- b. acquaint children with the world of work and services to the community and develop in them a sense of respect for manual workers;
- c. develop a desire to be useful members of society and contribute their best to the common good;

Socially useful productive work

d. indicate positive attitudes of team work and socially desirable values like self-reliance, dignity of labour, tolerance, cooperation, sympathy and helpfulness;

e. help in understanding the principles involved in the various forms of work; and

f. lead children to participate increasingly in productive work as they go from one stage of education to another and, thereby, enable them to earn while they learn.

3. Programme

Problem solving approach

In order to ensure that the educational objectives of this programme are achieved it is necessary to follow the problem solving approach. Children should be made aware of the problems related to their needs; they should be led to arrive at solutions by discussing the material, tools and techniques necessary for performing such work and services. A built-in system of evaluation should be developed to enable them to improve their performance and to enable teachers to give a fair assessment of their work. As recommended later *Socially Useful Productive Work* must be given the status of a full-fledged subject in the final public examination taken at the end of Class X.

Teaching-learning process: three phases

Children have a natural curiosity to explore their environment. They explore the world of work by observation, enquiry and manipulation of material and tools; they learn to work by imitation. They enjoy working together and enjoy helping adults in their work. Therefore, the teaching-learning process in *Socially Useful Productive Work* will have three phases:

a. study of the world of work through observation and enquiry;

b. experimentation with material, tools and techniques; and

c. work practice.

The first two are concerned with preparation for actual participation in productive work and services and the third may lead to remuneration.

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Work situations: six areas

Thus, productive manual work situations relating to production of goods and services will have to be drawn from the areas of: health and hygiene; food; shelter; clothing; culture and recreation; and community work and social service.

These work situations occur in the home, in the school and in the community. Such programmes will have two components:

- a. a common core programme;
- b. work practice.

The purpose of the common core programme will be to bring about attitudinal changes and to develop readiness for work practice.

The purpose of work practice is to give a vocational bias to the programme. It will, therefore, be repetitive in nature and, it is hoped, remunerative in kind or cash.

Programmes by classes

Such programmes will take the form of simple projects in classes *III-VII/VIII* and will include *main* and *subsidiary* crafts in classess *VIII/IX* and *X*.

The programme of *Socially Useful Productive Work* may be summarized as follows:

a. Classes I and II: Helping in work situations in the home, in the school and in the community; manipulating simple material with simple tools for creative self-expression.

b. Classes III-VII/VIII: Common activities pertaining to the *six* areas mentioned earlier.

1. Health and hygiene: Dusting of furniture; cleaning of classrooms, school buildings, the school compound and its vicinity.

2. Food: Vegetable gardening or pot culture; cooking of meals.

3. Shelter: Construction with plastic, pliable and rigid material. Maintenance of articles of use.

4. Clothing: Spinning and simple handweaving or knitting; washing of clothes; stitching; mending.

Socially useful productive work

5. Culture and recreation: Decorating the classroom, school and home; flower gardening; preparation for important national days (including hoisting and saluting the National Flag), festivals and school functions.

6. Community work and social service: Cleaning the neighbourhood; preparation, maintenance and use of a compost pit; planting and care of shade trees; running of cooperative stores; the school panchayat; helping adults in productive work.

In *classes V/VI to VII/VIII* activities as in the previous classes will be continued but they will be of an advanced type.

Work practice will be in the form of projects selected from the list given below.

Two projects at least be selected from the following illustrative activities in each class.

1. Health and Hygiene: Making of tooth powder; soap; disinfectants; detergent powder; hair oil; brooms; waste-paper baskets; dust bins; compost manure; first aid boxes; health posters; booklets on health and hygiene; keeping health records; keeping the neighbourhood clean; working at health centres.

2. Food: Growing of selected vegetables and ornamental plants in plots or pots, where possible for sale.

Seed collecting; soil testing; experimentation with different kinds of soil, different types of seeds, different kinds of manure; vegetative propagation by cutting; vegetative propagation by breeding; vegetative propagation by grafting; vegetative reproductivity; layering; soil conservation.

Making of jam; jelly; ketchup sauce; pickles; fruit juices; confectionery or bakery items. Working in canteens or stalls for a specified period. Packing of food material.

3. Shelter: Making articles of use with the help of any material; making stationery items; white washing; polishing doors, windows, and furniture; caning chairs; repairs of furniture; casual labour work in the school.

4. Clothing: Spinning: making school bags; school uniforms; handkerchiefs; table-cloths; pillow-cases; knitting; making mats.

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5. Culture and recreation: Toy-making; artificial flowers; pottery painting; making games material; cards for festivals; fancy covers for books and book-binding; fancy candle-making.

6. Community work and allied social service: Helping adults in their work as projects, such as, keeping a specified area clean; helping in the care of the sick; first aid; helping at functions and during festivals; traffic control; helping in the literacy campaign.

c. Classes VIII/IX-X: Greater emphasis should be placed on *work practice* in these classes. Work practice will include *one* main craft or equivalent service and at least *one* subsidiary craft or equivalent service.

Main crafts/services

1. Health and hygiene: Growing medicinal plants; eradication of communicable diseases; paramedical service.

2. Food: Agro-industries; kitchen gardening; pot culture; crop and seed production; repair of farm implements; soil conservation and desert control; horticulture animal husbandry and dairying; bee keeping; poultry farming; fish culture; bakery; confectionery; cooking.

3. Shelter: Pottery; masonry work; workshop practice (mechanical); workshop practice (electrical); workshop practice (electronics) cane and bamboo work; housecraft; blacksmithy; foundry work; carpet weaving.

4. Clothing: Production of cotton, wool, silk and other fibres; weaving; dress making; knitting; hosiery work; embroidery work; dress designing; leather work.

5. Culture and recreation: Making toys and puppets; making and repairing musical instruments; making games material; printing; book binding; making stationery; photography.

Subsidiary crafts/services

1. Health and hygiene: Cleanliness of the neighbourhood, well and pond and the disposal of garbage; construction of toilet facilities and compost pits; making tooth picks; tooth powder; soap; detergents; disinfectants; first aid boxes; construction of waste-paper baskets; dust bins; garbage cans; brooms; brushes; cob-web cleaners; dusters; mops; etc. detection of adulteration.

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2. Food: Distribution of fertilizers and insecticides; processing and preservation of food; hydroponics; mushroom culture; *khandsari gor* and candy making; catering; making jam, jelly, squashes, pickles, *bari* and *papad* etc., packing food; marketing.

3. Shelter: Home, village and town planning; lac culture. Renovation and effecting minor repairs in buildings, fittings, furniture and household articles; decorating the home; gardening; surface decoration; interior decoration; construction of decorative pieces; plaster of paris work; chalk and candle making; making limestone.

4. Clothing: Spinning of different fibres; dyeing and printing; repair of garments; laundry work.

5. Culture and recreation: Stage craft; making costumes; holding exhibitions.

4. Teachers

Importance of teachers

The provision of properly skilled teachers for the implementation of the programme of *Socially Useful Productive Work* is of the utmost importance. In order to give this area of work its proper place in the school programme it is recommended that:

1. the professional status of teachers of *Socially Useful Productive Work* should be the same as that of other teachers;

2. there should be provision for the part-time employment of skilled personnel for different activities;

3. there should be cells for *Socially Useful Productive Work* in the State Departments of Education and the State Institutes of Education to develop programmes of in-service training;

4. a scheme of course content of *Socially Useful Productive Work* for Teacher Training Colleges should be produced by NCERT in collaboration with such other institutes which have included manual labour in their regular programmes.

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5. Implementation

Committees

Co-ordinated efforts should be made for the implementation of the programme.

High level committees at the Central level and State levels should be constituted by the respective Departments of Education so that the decisions made by them should invariably be accepted and implemented without delay. These Committees meet regularly to review the progress of work in these areas and remove difficulties in implementation and also create a climate of opinion in favour of this area of the curriculum.

C. Vocationalization

The Report of the National Review Committee on Higher Secondary Education with special reference to Vocationalization (1978)³ made pervasive recommendations regarding vocationalization at this level.

Recommendations:

- The Higher Secondary stage should comprise a General Education Spectrum and a Vocationalized Spectrum. The course pattern for the General Education Spectrum would comprise: language, with 15 per cent of time allocation involving study of one language; socially useful productive work with 15 per cent time allocation, compulsory for all General Education students with defined objectives, planning involving general type of productive service programmes and programmes related to the subject being studied. This programme should be co-ordinated at various levels and for its evaluation, a format is set forth. Electives - with a 70 per cent time allocation, an illustrative list of 16 electives is proposed for the General Education course with flexibility to suit local conditions.

- The course pattern for the Vocational Spectrum comprises: language with 15 per cent of time allocated which will involve study of one language; general foundation

3. India. Working Group on Vocationalization. *Report*. New Delhi, Ministry of Education & Social Welfare, 1978. 35 p.

courses - all students taking vocationalized courses having to spend 15 per cent of time on general foundation courses; vocational electives on which 70 per cent of the time is spent: agricultural electives will cover inter alia, inland fisheries, agriculture, farm mechanics and engineering, soil and water conservation, repairing and maintenance of farm machines, post-harvest technology, agri and agro industries, agricultural chemicals, animal husbandry, horticulture based courses, soil, water testing and management, co-operative marketing/agricultural produce marketing, small farm management and rural construction technology, apiculture, sericulture, fuel and energy and non-agricultural vocational courses will comprise business and office management, para-medical, educational services, local body and other service, journalism, home science related vocations, and other general services, (manufacturing industrial and engineering occupational skills are being more than adequately met by existing ITIs, polytechnics and so are not included).

- Higher secondary school authorities should pause and review their programmes in light of the guidelines set forth in the report.

- There should be no rigid streaming of courses into General Education Spectrum and Vocationalized Education Spectrum and there should be many cross-over points between the two.

- There are three models in the offering of electives: those schools which offer only General Education Spectrum; those schools which offer only Vocationalized Education Spectrum; and those which offer both.

For the Sixth Plan, the generality should be the third model.

- Vocational surveys of areas should be undertaken before finalizing the vocational courses even where they have been launched, and for the location of schools with vocational courses.

- The spare capacity of all existing vocational/technical schools should be used by running double shifts and adding further courses to the ITIs, polytechnics, industrial high schools etc., in accordance with demands for them.

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- As little or no vocational education facilities exist in rural areas, all new schools should be constructed in rural areas and should be adequately equipped.

- Counselling and Placement Officers should be appointed to clusters of three or four schools.

- Pre-service education for teachers for the plus 2 stage should be carefully planned by universities; massive in-service training programmes for teachers, particularly in vocational agriculture should also be organized; to start with, practical vocational experience rather than post-graduate qualifications is recommended for vocational teachers.

- On curriculum and textbooks, a special effort will have to be made by using expertise of practical working people as well as academics. On agriculture and related subjects, textbooks must be written within the country.

- The apprenticeship programme should be open to those who complete vocationalized higher secondary education level and the recruitment policy of the government should emphasize vocational qualification rather than general university degrees.

- The vertical mobility of students at this stage should be assured through changes in the admission policies and requirements of formal and non-formal systems of education and through government policies.

- The Semester pattern and the Credit System might be followed in States where the universities have adopted it, with the other States following after some time.

- To ensure co-ordination, co-operation and evaluation, the National Council of Vocational Education, State Councils of Vocational Education and local bodies are recommended.

- For the Sixth Plan, finances needed for higher secondary education level are not much because of the concentration on agriculture and related vocations. However, some additional money would be needed and this should be regarded as a national investment and investment in the future.

The *general foundation courses* have been further specified as follows:

In order to provide a more rounded course to those who choose vocationalized electives, a general foundation course, which provides a broad background area of knowledge of life and history, is recommended. Such a course will equip the student with the minimum knowledge which will broaden his outlook and provide him with essential information about various inter-related matters which are helpful for successfully pursuing any work on his own. Vocationalized knowledge and the development of related skills are *per se* not enough to enable a person to enter life and set up his own establishment, however small it may be. The general foundation courses will fill in this gap, giving general information on the history of science and technology, on the development of Indian culture, or on the elements which are common to different vocational elective subjects. With regard to the latter, for example, the courses could include units on marketing of produce, entrepreneurship, co-operatives, credit facilities, management of small farms, small cottage industries and small establishments, adaptability to changing situations and general exposure to world trends. Special emphasis should be laid in the general foundation courses with regard to the requirements for rural vocations.

A specimen syllabus of this general foundation course based on the inter-related concepts of education, work and development related to productivity in different vocations is given in the following paragraphs which will need to be adapted to each set of local circumstances by State Boards. The course is meant to be taught for two years, 4 to 5 hours per week. Part 'A' of the course is common to all vocations. From Part 'B', the unit most related to the particular vocations may be chosen.

The objectives of the course are to enable the student to: become aware of the need for rural development and self-employment; understand the place of agriculture in the national economy; develop skills and managerial abilities to run small-scale and cottage industries; and gain insight into the problems of unemployment, under-employment, under-development and economic backwardness of India.

The course content will comprise Part 'A' and Part 'B':

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PART 'A'

- Gandhian Concept of Education
- Agriculture in the National Economy
- Rural Development
- Problems of Urban Slums
- Health, Hygiene and Sanitation

PART 'B'

(Choose any one of the following 9 sections as appropriate)

- Small-Scale and Cottage Industries
- Entrepreneurship
- Co-operatives and Credit Facilities
- Marketing
- Sales Promotion
- Unemployment, Under-employment and Manpower Utilization in India
- Human Relations
- General Exposure to World Trends and Changes
- Environmental Protection and Development

The teaching of *vocational electives*, would cover 70 per cent of the weekly hours of instruction with 50 per cent of these hours devoted to practical work. Special attention has to be given to the self-employment factor. Vocational education at this level should, as far as possible, not duplicate what the ITIs, or Technical Higher Secondary Schools are at present offering. As the main thrust of the proposed vocationalization is on rural, agricultural and related vocations, the question of spending a minimum of 2,000 hours, as is done in the case of technical vocations at present, should not normally arise. It should suffice if the desired competency can be acquired in the given time in the particular vocation. The course in vocational areas should be drawn up in such a way that the employability of the students will be enhanced. The duration of a vocational course should normally be two years in so far as the instruction in the schools in the formal system is concerned. The courses requiring lesser duration than two years, may be pursued through non-formal systems, such as part-time and evening courses, correspondence courses,

etc., and the institutions should be free to offer such courses through non-formal channels.

Agriculture and related vocations

Education for farming and rural living is an important aspect of the total educational programme in India. Vocational education in agriculture can fill a conspicuous gap in the education of farm boys and girls. Vocational agriculture is directed towards strengthening the farm and the farm family in its role of producing food, educating youth, contributing to the personal development of individuals, and helping them to become competent farmers and responsible rural citizens. It is proposed that those students who offer vocational course in agriculture, study one course on fundamental principles of agriculture relating to crops, horticulture, animal science and allied developmental work done in the field of agriculture. Formal education in agriculture given by agricultural schools, colleges and universities has trained men predominantly for jobs, and only a small proportion of those trained have gone back to their farms. Therefore, it is essential to provide a series of courses for the future farmers so that they can select vocational subjects according to their own choice and need, which will be useful to them in their practical life.

The following courses already exist in the syllabi of the Central Board of Secondary Education and may be retained: Inland fisheries; Basic programme in fruit and vegetables; Agriculture; and Farm Mechanics and Engineering.

The following additional vocational courses are recommended:

- **Soil and Water Conservation**
- **Repairing and Maintenance of Farm Machines**
- **Post-harvest Technology**
- **Agri-based and Agro-based Industries**
- **Agricultural Chemicals**
- **Animal Management-based course**—including—*Dairy Husbandry; Sheep and Goat Production; Poultry Farming; Pig Husbandry; Veterinary aids, health and care of farm animals.*
- **Horticulture-based courses**—including—*Nursery management; Vegetable and Fruits (Olericulture & Pomology); Floriculture and Medicinal Plants; Fruit and Vegetable Preservation;*
- **Soil, Water Testing and Management**

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- **Co-operative Marketing/Agricultural Produce Marketing**
- **Small Farm Management and Rural Construction Technology**
- **The following small courses are also recommended:** *Fuel and Energy; Bee keeping; Sericulture; Forestry and Forest Products; Commercial Crops; Agricultural Economics*
- **Related Subjects:** Related subjects may be taught to strengthen the vocational courses. These subjects may be agricultural physics, agricultural chemistry, anthropology, plant pathology, human and animal nutrition etc., instead of physics, chemistry or biology.

The teaching of vocational agriculture is a many-sided occupation. It calls for first hand basic technical knowledge of farming as an occupation and/or business. It requires fundamental and specialized knowledge and skill in how to train others in the many jobs which occur in the daily life and work of agricultural citizens. Such teaching calls for a high degree of leadership and public relations ability. Teaching of vocational agriculture can only be done successfully when approached from the practical point of view. This calls for first hand experience on the part of the learner and can be obtained only by actually working on and with the soil, the land, laboratory or school farm, which offer an opportunity to provide or supplement such experiences. So, it is suggested that only those schools having at least one hectare of land be given permission for starting this vocational course. Rural schools can be pioneers in the opening of this vocation, as these schools generally have ample land and an agricultural background among its students.

Non-agricultural Vocational Courses

The following vocational courses have been identified and an outline of the course content has also been indicated against each. The trades being handled by the ITIs are not included and the list of vocations to be offered by ITIs is in addition to this list.

- **Business and Office Management:** *Banking; Office Management and Secretarial Practice; Stenography and Typewriting; Accounting and Auditing; Telex and Telephone Operator; Office Machines Operator; Marketing and Salesmanship; Purchasing and Store Keeping;*
- **Para Medical:** *Multi-purpose Health Workers; Orthopaedic Technician; Ophthalmic Technician; Laboratory Technician*

(Medical); Dental Technician; Dental Hygiene Technician; Radiology Technician; Physiotherapy Technician; E.C.G. and E.E.G. Technician; X-Ray Technician; Dietician Assistants; Technician for Artificial Limbs; Health Extension Worker.

- **Educational Services:** Museum Keepers; Library Assistant; Laboratory Assistant; Audio-visual Technician; Teachers (Primary Classes); Educational toys makers; Preservation of Books and Manuscripts; Balwari Teachers; Music and Drawing Teachers.
 - **Local Body and Other Services:** Village level worker; Development worker; Extension worker; Block extension educator.
 - **Journalism:** Editorial assistants, Newspaper reporters.
 - **Home Science Related Vocations:** Textile Design; Hotel Reception and Management; Interior Decoration; Laundry; Food Processing and Preservation; Dress-making and Designing.
- (Also refer the vocations set forth above under Dietitian assistants, educational toy makers, Balwari teachers, village level workers (women), extension workers (women)).
- **Other General Services:** Commercial Art; Photography; Printing and Lithography; Ceramics; Pottery; Tourist Guides; Barbary.

Focussed on implementation aspects, the Working Group on Vocationalization (1978)⁴ made the following further recommendations:

Recommendations

- To identify the vocations having good employment potential, to locate good schools where the new vocational courses can be introduced and to assess the local assistance for on-the-job training, vocational surveys should be conducted, in a phased manner before introducing Vocational Courses and only those courses which have good employment potential should be started.

- Such vocational surveys should be conducted at

4. India. Working Group on Vocationalization. *Report*. New Delhi, Ministry of Education & Social Welfare, 1978. 35 p.

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regular intervals to evaluate the on-going vocational programmes, to suggest modifications or improvement of curricula and recommend new vocations for which courses have to be designed.

- During the next five years, vocational facilities should be provided in a minimum of 2,000 schools/colleges in a phased manner of which 500 should be new ones.

- Since almost all the Vocational/Technical institutions are located in the urban or semi-urban centres, the new schools for vocational studies should be constructed in the rural areas and they should be well-equipped.

- All the existing Technical and Vocational schools at the secondary stage should be revitalized by providing appropriate inputs and new courses should be added to ensure optimum use of the existing facilities.

- Adequate incentives in the form of scholarships should be offered to the students of vocational streams at the secondary stage.

- Adequate number of vocational teachers should be appointed and trained both on regular and part-time basis on suitable remunerations. Periodical in-service training should also be arranged for the regular staff for updating their knowledge and skills.

- In all vocational schools/colleges where vocational studies are offered, either the Head of the School/College or the Deputy Head should possess vocational qualifications in at least one major vocation, to look after the proper implementation.

- Preparation of curricula centrally should be done away with. Curriculum Committees consisting of professional experts, future employers and academics should be set up for each region and should be entrusted with the task of preparing curricula relevant to the region or the district. The accent should be more on preparing students for self-employment than wage employment.

- All vocational courses should be offered in terms of well connected, self-contained units or modules and the students' achievement should be evaluated at the completion of each module. A certificate of completion of the module satisfactorily should be issued to the student.

Vocationalization

- Good textbooks, teaching aids and teacher's guides have to be ready before the vocational courses are launched. At the initial stages, foreign publications should be procured and made available. Local authors and publishers should be encouraged to produce suitable books in simple language and with adequate practical details.

- The programme of vocationalization in rural areas should be linked with various programmes of rural development.

- In the urban sector, more stress should be laid on the courses in the areas of commerce and trade, textiles, para-medical, electrical and other technical subjects.

- Vocational courses should be designed to inculcate the capacity to combine intellectual knowledge with skill training in the selected vocations.

- Opportunities for vertical and horizontal mobility for vocationally qualified students should be provided in ample measure to encourage a sizeable section of students to pursue vocational studies. Specialized courses in the lines of occupations should be offered in professional institutions to help students claim superior positions of employment.

- There should be flexibility in the duration of vocational courses according to the needs of students, the required levels of competency and proficiency. Rigidity of duration of courses is hardly conducive to the vocational courses and may tend to become a disincentive to the aspiring students.

- For up-dating and improving skills and knowledge, advanced specialized courses of varying durations should be planned through part-time, correspondence, sandwich and short time intensive courses.

- Socially Useful Productive Work should be integrated with general education in the academic stream to equip all the students with certain elementary skills.

- Creative Work Centres/Hobby Centres should be established in the centrally located situations to encourage creative faculties of the youngsters and to promote productive impulses.

- Apprenticeship facilities should be extended to all the students who complete vocational courses so that

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good on-the-job training is available for further improvement of competencies.

- Steps should be taken to provide guidance and counselling facilities for careers and courses to all the students.

- The recruitment policy of the Government and public sector undertakings should be revised, and job requirements should replace the academic qualifications as essential qualifications for selection. Where graduates and vocationally qualified persons appear for tests/interviews, other things being equal or nearly equal, preference should be given to vocationally qualified persons.

- The National Council of Vocational Education (NCVE) and State Councils of Vocational Education (SCVE) should be set up without delay and their spheres of action, composition and functions to be performed should be defined. These Councils should ensure, quality and standards of vocational education, and co-ordination and co-operation among all agencies which are at present offering vocational education and those connected with employment.

- Since Vocationalization of Education falls into the purview of 12 year school education, it is necessary that it remains under the administrative control of a Senior Officer, at least of the rank of a Bureau Head, whose staff should be adequately strengthened to enable the Bureau Head to discharge his responsibilities effectively and expeditiously. He shall be responsible for implementing all the decisions of the NCVE.

- Private organizations and individuals should be encouraged to participate in the programme by providing incentives to start new schools and ensure autonomy to run them. Incentives may also be provided by allowing certain tax exemptions in lieu of training facilities provided to the students of vocational streams.

ANNEX

Work-experience programmes in schools - a status survey⁵

The Kothari Commission (1964-66) emphasized the importance of work-experience to forge a link between education and productivity. It recommended that work-experience should be made an integral part of the general education. Some of the states were very enthusiastic in implementing this recommendation and the State Education Departments directed the schools under them to introduce some sort of work-experience in the school programme. Some schools introduced work-experience programmes on their own as an educational innovation without any directive from any quarter. Some schools adjusted the programme within the school hours while others maintained it as an off the school hours activity and arranged it before or after the school hours. Some schools even arranged it during the summer vacations.

In the Third All India Educational Survey a lot of qualitative and quantitative data on school education was collected from each and every school in India. On the advice of the Advisory Committee of the Third All India Educational Survey for School Education data on the important aspects of work-experience and craft education in schools was collected. The data collected included: number of schools having the programme of work-experience and teaching of crafts; activities arranged; time devoted per week to each activity; availability of teachers; adequacy of equipment; availability of workshop facility and its adequacy; reasons for not having the programme of work-experience.

5. India. Ministry of Education & Social Welfare. *Work experience in schools; Third All India Educational Survey*. New Delhi, 1977. 76 p.

Table 1. Schools having the programme of work-experience

School type	Number of schools with work-experience	Percentage of total number of schools in that category
Primary	24 034	5.27
Middle	8 510	9.38
Secondary	8 481	25.61
Higher secondary/ Intermediate colleges	674	7.09
Total	41 699	7.08

There are 41,699 recognized, schools in India where the programme of work-experience is in progress. These constitute 7.08% of the total number of schools in India. Out of these 33,880 are located in rural areas and 7,819 in urban areas. Besides these, 56 unrecognized schools - 18 in rural areas and 38 in the urban areas, claim to have the programme of work-experience.

Twenty four thousand and thirty four primary schools constituting 5.27% of the total number of primary schools in India, are carrying on the programme of work-experience. Out of these 21,252 are schools in the rural areas and 2,782 are in the urban areas. Schools in Assam, Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Orissa, Tamil Nadu, Tripura, West Bengal, A and N Islands, Arunachal Pradesh, Chandigarh, Dadra and Nagar Haveli and Delhi do not have the programme of work-experience. In Gujarat, Kerala, Maharashtra and in Rajasthan, more than 10% of the primary schools have the work-experience programme.

In 8,510 (9.38%) middle schools in India programme of work-experience is in progress. Out of these 6,986 are situated in the rural areas and 1,524 are in the urban areas. Middle schools in Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, Nagaland, Orissa, Tamil Nadu, West Bengal, A and N Islands, Arunachal Pradesh, Dadra and Nagar Haveli, Delhi and Pondicherry do not have the programme of work-experience. In Kerala, Maharashtra, Rajasthan and in Mizoram more than 10% of the middle schools have the work experience programme.

Programmes of work-experience are going on in 8,481 (25.61%) secondary schools in India. Out of these schools, 5,430 schools are in the rural areas and 3,051 are in the

urban areas. Secondary schools in Gujarat, Himachal Pradesh, Jammu and Kashmir, Nagaland, Orissa, Tamil Nadu, West Bengal, Dadra and Nagar Haveli, Lakshadweep and in Pondicherry do not have the programme of work-experience. In Karnataka, Kerala, Maharashtra, Rajasthan, Chandigarh, Goa, Daman and Diu and in Mizoram more than 10% of the secondary schools have the work-experience programme.

Six hundred and seventy four (7.09%) higher secondary schools, Intermediate Colleges and Junior Colleges in India are carrying on the programme of work-experience. Out of these, 212 are located in the rural areas and 462 are in the urban areas. In Assam, Karnataka, Kerala, Maharashtra, Rajasthan, Tamil Nadu and in Chandigarh more than 10% of educational institutions of this level have the work-experience programme.

Schools have introduced various crafts and productive hobbies as work-experience. Under this programme we have from the most traditional crafts like spinning, weaving, agriculture, wood work etc. to the most modern activities like repairs of electrical gadgets, printing, food preservation etc.

Book-binding, gardening, agriculture, spinning and weaving and clay work are some of the popular activities under the programme of work-experience in the primary schools in the rural areas. These activities also seem to be popular in the primary schools in the urban areas. The following Table 2 gives the activities in progress in the primary schools.

Agriculture, book-binding, gardening, needle work, clay work and spinning and weaving are some of the activities which are popular in middle schools both in the rural and urban areas. However, the level of popularity of various activities in the two areas is appreciably different. Agriculture and gardening are definitely more popular in the schools in the rural areas whereas book-binding, spinning and wood work are more popular in the schools in urban areas. The following Table 3 gives some of the available activities in the middle schools.

Table 2. Work-experience activities

Activity	No. of primary schools having the activity		
	Rural	Urban	Total
Agriculture/farming	1 659	184	1 843
Book binding/paper work	7 230	1 055	8 285
Carpentry/wood work	22	7	29
Drawing/painting	272	86	358
Electrical and mechanical repairs	4	1	5
Food preparation and preservation	69	3	72
Gardening/horticulture	2 097	434	2 531
Handicraft/doll making	78	7	85
Cane/bamboo work	56	4	60
Mat making	101	12	113
Needle work/sewing/knitting	716	161	877
Pot culture/clay work	8 487	867	9 354
Coir work/rope making	41	12	53
Spinning/weaving	3 129	396	3 525

Table 3. Work-experience activities

Activity	No. of middle schools having the activity		
	Rural	Urban	Total
Agriculture/farming	706	79	785
Book binding/paper work	1 731	670	2 401
Carpentry/wood work	206	88	294
Drawing/painting	90	38	128
Electrical and mechanical repairs	120	47	167
Food preparation/preservation	12	2	14
Gardening/horticulture	2 172	112	2 284
Handicraft/doll making	39	8	47
Cane/bamboo work	57	10	67
Mat making	6	-	6
Needle work/sewing/knitting	891	132	1 023
Pot culture/clay work	2 355	543	2 898
Coir work/rope making	64	5	69
Spinning/weaving	1 106	509	1 615

Agriculture, gardening, needle work, clay work and electrical and mechanical repairs etc. are some of the most popular activities in the secondary schools in the rural areas whereas agriculture, gardening, book binding, electrical and mechanical repairs, food preparation, needle work, claywork, coir work etc. are some of the most popular activities under the work-experience programme in the secondary schools in the urban areas. The following Tables 4, 5 give some of the available activities in the secondary schools.

Book binding, drawing and painting, electrical and mechanical repairs, gardening, needle work, wood work, spinning and weaving etc. are some of the most popular activities in the higher secondary schools and Intermediate and Junior Colleges in the rural areas whereas book binding, wood work, drawing and painting, electrical and mechanical repairs, gardening, needle work, clay work, etc. are the most popular activities in the institutions in the urban areas. The following Table 5 gives some of the available activities in higher secondary schools and Intermediate and Junior Colleges.

Table 4. Work-experience activities

Activity	No. of secondary schools having the activity		
	Rural	Urban	Total
Agriculture/farming	729	156	885
Book binding/paper work	217	178	395
Carpentry/wood work	225	99	324
Drawing/painting	113	86	199
Electrical and mechanical repairs	1 592	813	2 405
Food preparation/preservation	78	170	248
Gardening/horticulture	1 188	472	1 660
Handicraft/doll making	39	21	60
Cane/bamboo work	74	15	89
Lab. apparatus preparation	7	-	7
Needle work/sewing/knitting	388	401	789
Pot culture/clay work	1 114	1 117	2 231
Coir work/rope making	56	199	255
Spinning weaving	79	38	117

Table 5. Work-experience activities

Activity	No. of higher secondary schools/Intermediate Colleges/Jr. Colleges		
	Rural	Urban	Total
Agriculture/farming	7	20	27
Book binding/paper work	24	39	63
Carpentry/wood work	29	66	95
Drawing and painting	16	49	65
Electrical and mechanical repairs	15	76	91
Food preparation and preservation	1	11	12
Gardening/horticulture	48	77	125
Handicraft/doll making	2	7	9
Cane/bamboo work	3	10	13
Mat making	1	5	6
Needle work/sewing/knitting	29	75	104
Pot culture/clay work	6	30	36
Coir work/rope making	2	12	14
Spinning/weaving	15	13	28

Table 6. Time devoted to work-experience activities

Type of school	Time devoted to activities per week (in hours)					Total
	Upto 1 hr.	1.1- 3.0	3.1- 5.0	5.1- 7.0	More than 7 hrs.	
Primary	2 387 7.18	15 066 45.30	4 035 12.13	11 384 34.23	384 1.16	33 256 100.00
Middle	1 245 9.89	6 128 48.65	4 013 31.86	993 7.88	216 1.72	12 595 100.00
Secondary	1 351 13.72	5 736 58.24	2 021 20.52	415 4.21	326 3.31	9 849 100.00
Higher secondary schools/Intermediate Colleges etc.	68 9.02	332 44.03	205 27.19	90 11.94	59 7.82	754 100.00
Total	5 051 8.95	27 262 48.29	10 274 18.20	12 882 22.82	985 1.74	56 454 100.00

From the foregoing paragraphs it is evident that most of the schools both in rural areas and in urban areas are having indigenous crafts under the work-experience

programme. The activities lack variety. Only a small percentage of schools have attempted activities like electrical and mechanical repairs, preparation and preservation of food etc. There are certain activities which are confined to schools of one state/union territory only, e.g. Ink-making activity is available in the schools of Haryana, poultry in one school of Maharashtra, printing in Karnataka and laboratory apparatus preparation in Goa, Daman and Diu.

Time devoted per week to various activities (Table 6) varies from less than an hour to more than seven hours. On the All-India basis time devoted to activities in respect of 48.29% cases is from 1.1 to 3.0 hours and in respect of 8.95% cases, time devoted to activities is up to one hour. In the primary schools, in 45.30% cases time devoted is from 1.1 to 3.0 hours and in 24.23% cases it is from 5.1 to 7.0 hours. In middle schools, in 48.65% cases the time devoted per week is from 1.1 to 3.0 hours and in 31.86% cases it is from 3.1 to 5.0 hours. In secondary schools, in 58.24% cases time devoted varies from 1.1 to 3.0 hours and in case of higher secondary schools in 44.03% cases, time devoted is from 1.1 to 3.0 hours and in 27.19% cases it is from 3.1 to 5 hours.

A separate teacher for each work-experience activity is available in 10,254 schools in India which constitute 24.56% of the schools having the programme of work-experience. Out of these 6,762 and 3,492 are located in the rural areas and urban areas respectively. Three thousand one hundred and forty primary schools - 2,831 in the rural areas and 309 (11.00%) in the urban areas, claim to have a separate teacher for work-experience activities. One thousand two hundred and sixty nine middle schools - 1,059 in rural areas and 210 in the urban areas, have a separate teacher for work-experience activities. Five thousand four hundred and eighty two secondary schools - 2,777 in the rural areas and 2,705 in the urban areas, are having separate teacher for work-experience activities. In respect of higher secondary schools, Intermediate/Junior Colleges etc. 363 institutions - 95 in the rural areas and 268 in the urban areas, claim to have a separate teacher for work-experience activities.

Nine thousand four hundred and thirty five schools in India - constituting 22.60% of the schools having the programme of work-experience, have adequate equipment for work-experience activity. Out of these 6,419 and 3,016 are

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located in the rural areas and in the urban areas respectively, 2,509 primary schools - 2,111 in the rural areas and 398 in the urban areas, have adequate equipment. One thousand and eighty middle schools - 856 in the rural areas and 224 in the urban areas, claim to have adequate equipment, 4,508 secondary schools - 2,369 in the rural areas and 2,139 in the urban areas state to have adequate equipment. In respect of higher secondary schools, Intermediate and Junior Colleges, 338 - eighty three in the rural areas and 255 in the urban areas, are having adequate equipment for work-experience activities.

The schools not having the programme of work-experience were asked to give reasons for not having the programme of work-experience in the schools. The reasons when ranked as per the number of schools giving a particular reason are: lack of resources; no equipment/inadequate equipment; lack of teachers/trained teachers; inadequate funds; lack of approval/provision by Government/management; lack of raw material; and inadequate space and accommodation.

Lack of equipment and lack of trained teachers seem to be the sound reasons for not having the programme of work-experience. Inadequate accommodation in respect of institutions in urban areas is another strong reason for not having the programme of work-experience.

Craft education - teaching of crafts

Table 7. Schools having teaching of crafts

Type of school	Number of schools with craft teaching	Percentage of total number of schools in that category
Primary	132 605	25.10
Middle	31 633	34.88
Secondary	10 604	32.02
Higher secondary/ Intermediate colleges	5 192	54.62
Total	180 034	30.56

There are 180,034 recognized schools in India where teaching of crafts is available (Table 7). These constitute 30.56% of the total number of schools in India. Out of these 151,726 are located in the rural areas and 28,308 are in the urban areas.

There is provision for teaching of crafts in 132,605 primary schools which constitute 29.10 per cent of the total number of recognized primary schools in India. There is no teaching of crafts in the primary schools of Assam, Manipur, Meghalaya, Punjab and Chandigarh. In Bihar, Haryana, Jammu and Kashmir, Karnataka, Nagaland, Orissa, Tripura, West Bengal and Goa, Daman and Diu, the teaching of craft is provided in less than 10 per cent of the primary schools in them. In Tamil Nadu and Rajasthan in almost all the primary schools teaching of craft is done.

Teaching of crafts is available in 31,633 middle schools which constitute 34.88 per cent of the total number of recognized middle schools in India. There are no middle schools in Gujarat. Middle schools in Manipur, Chandigarh and Nagar Haveli do not have the teaching of crafts in them. In Assam, Haryana, Karnataka, Meghalaya, Nagaland, Orissa, Punjab, West Bengal and in Goa, Daman and Diu, the teaching of craft is provided in less than 10 per cent of the middle schools in them. Kerala, Rajasthan, Tamil Nadu, Uttar Pradesh, A and N Islands, Arunachal Pradesh, Lakshadweep and in Mizoram, more than 50% of the middle schools provide teaching of crafts.

Teaching of crafts is available in 10,604 (32.02%) high schools in India. In Bihar, Haryana, Manipur, Meghalaya, Nagaland and in Punjab less than 10% of the high schools have teaching of crafts whereas in more than fifty per cent of the high schools in Kerala, Rajasthan, Tamil Nadu, Uttar Pradesh, Dadra and Nagar Haveli and in Lakshadweep, crafts are being taught.

Five thousand one hundred and ninety two higher secondary schools and Intermediate Colleges have crafts teaching in them. These constitute 54.62% of the higher secondary schools and Intermediate Colleges in India. In Assam, Maharashtra, Punjab, and Delhi less than 15% of the higher secondary schools/Intermediate Colleges have teaching of crafts(s) in them whereas in Himachal Pradesh, Madhya Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh, A and N Islands, Arunachal Pradesh, Chandigarh and in Lakshadweep, more than 50% of the higher secondary schools and Intermediate Colleges have the provision of teaching of crafts in them.

A good number of crafts are being taught in schools. Crafts vary from school to school, region to region and

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state to state. Schools offer from the most traditional crafts like spinning and weaving, agriculture, clay modelling, wood work etc. to the most modern crafts like, flower making, plastic work, batik painting, metal work, repairing of electric gadgets, radio and watch repairing etc. Many a school offers more than one craft. It seems that the selection of a particular craft by a school is made keeping in view many factors, namely the type of the school, age of the students, availability of teachers, availability of raw material, the financial power of students and of the school and the occupation of the community at large etc.

In the primary schools, crafts which involve a small expenditure on the part of schools and students, are popular. Spinning and weaving, clay work and cardboard work are the most popular crafts in the primary schools both in the rural areas and in the urban areas. Agriculture and gardening are more popular comparatively in the rural schools. Some of the crafts taught in the primary schools are given in Table 8 below.

Table 8. Crafts taught in schools

Craft	Number of primary schools		
	Rural	Urban	Total
Spinning and weaving	47 747	13 436	61 183
Agriculture/soil work	10 874	1 375	12 249
Gardening	14 767	822	15 589
Wood work	475	466	941
Card board/paper work	25 949	4 276	30 225
Book binding	1 876	349	2 225
Needle work/sewing/tailoring	2 178	1 073	3 251
Clay work	49 123	5 557	54 681
Art and craft	1 012	80	1 092
Mat making	1 033	97	1 130
Rope making	480	2	482
Coir craft	228	11	239
Cane/bamboo work	758	130	888

Forestry, toy making, brick making, fencing, mud plastering, pot culture, flower making, plastic work, palm leaf work, candle making and chalk making are some of the other crafts taught in the primary schools. However, the number of schools offering these crafts is very small.

Spinning and weaving, agriculture, gardening, needle work, and clay work are some of the popular crafts with the middle schools in the rural areas whereas spinning and weaving, agriculture, card board work, book binding and needle work are the popular ones with the schools in the urban areas. Some of the crafts taught in the middle schools are given below in Table 9.

Table 9. Crafts taught in schools

Craft	Number of middle schools		
	Rural	Urban	Total
Spinning and weaving	6 403	1 221	7 624
Agriculture and soil work	5 648	751	6 399
Gardening	4 135	468	4 603
Wood work	1 306	365	1 671
Home craft	1 110	409	1 519
Card board/paper work	1 060	813	1 873
Book binding	1 477	582	2 059
Needle work/tailoring/knitting	2 827	1 800	4 627
Clay work	2 487	216	2 703
Art and craft	1 304	215	1 519
Mat making	186	21	207
Rope making	29	2	31
Coir craft	183	30	213
Drawing and painting	-	3	3
Cane/bamboo work	154	27	181

Leather work, fibre work, chalk making, soap making, metal work, batik painting, candle making, horticulture, fencing and mud plastering are some of the other crafts being provided in the middle schools but the number of schools offering these crafts is very small.

Spinning and weaving, agriculture, wood work and needle work are the most common crafts in secondary schools in rural areas whereas the most popular crafts with the schools in the urban areas are spinning and weaving, gardening, wood work, cardboard modelling and needle work. Some of the crafts taught in the secondary schools are given in the following Tables 10, 11.

Metal work, leather work, shell work, model making chalk making, horticulture, electric wiring, plastic moulding, etc. are some of the crafts also provided in the

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secondary schools. The number of schools offering these crafts is very small.

Table 10. Crafts taught in schools

Craft	No. of secondary schools		
	Rural	Urban	Total
Spinning and weaving	1 719	790	2 509
Agriculture/soil work	1 019	176	1 195
Gardening	687	410	1 097
Wood work	755	684	1 439
Home craft	196	141	337
Card board/paper work	266	368	634
Book binding	398	235	633
Needle work/tailoring/knitting	1 513	1 532	3 045
Clay work	251	112	363
Art and craft	10	1	11
Mat making	3	1	4
Coir craft	39	34	73
Drawing and painting	231	58	289
Cane/bamboo work	10	13	23

Table 11. Crafts taught in schools

Craft	No. of higher secondary schools/Intermediate Colleges		
	Rural	Urban	Total
Spinning and weaving	627	223	850
Agriculture/soil work	686	166	852
Gardening	810	325	1 135
Wood work	308	485	793
Home craft	31	117	148
Card board/paper work	32	44	76
Book binding	142	235	377
Needle work/tailoring/knitting	305	695	1 000
Clay work	7	76	83
Rope making	-	1	1
Drawing and painting	13	16	29
Art and craft	1	11	12
Cane/bamboo work	9	5	14

Spinning and weaving, agriculture, gardening, wood work and needle work are the most common crafts in the higher secondary schools and Intermediate Colleges in the rural areas, whereas gardening, wood work and needle work are the most popular crafts in their counterparts in the urban areas. Some of the crafts taught in the higher secondary schools and Intermediate Colleges are given in Table 11.

Electric gadgets, metal work, chalk making, horticulture, soap making, radio and watch repairing, leather work, toy making etc., are some of the crafts also provided in schools and colleges. The number of institutions offering these crafts is small.

There are certain crafts which are taught in all types of schools, namely primary, middle, secondary and higher secondary. There is a shift of popularity of some of these as we move from primary schools to higher secondary schools, e.g. spinning and weaving, card board work, clay work are comparatively more popular in primary and middle schools. Agriculture and gardening are more popular in secondary and higher secondary schools. Wood work and home craft enjoy better acceptance in secondary and higher secondary schools. Some of the crafts like rope making, mat making, bamboo work etc. have, by far, less acceptance in secondary and higher secondary schools as compared to their acceptance in primary and middle schools.

Though most of the crafts are taught in schools both in the rural and urban areas, yet there is a marked difference in the level of popularity of certain crafts in the schools located in the rural areas and schools in the urban areas. Spinning and weaving and clay work are comparatively more popular with the schools in the cities whereas agriculture and gardening have better acceptance in schools in rural schools. Wood work, home crafts, book binding, needle work etc. are almost equally popular both in the rural and urban schools. Schools in the rural areas are contented with the traditional type of crafts whereas their counterparts in the urban areas have switched over to crafts like chalk making, radio and watch repairing, leather work, repairing of electric gadgets, metal work etc.

Middle, secondary and higher secondary schools for girls prefer needle work, knitting and home craft to other crafts. Some of the crafts like rope making, mat making, coir craft, shell work, forestry, horticulture etc. have

Annex

been introduced in schools keeping in view the local conditions and availability of the raw material.

Table 12. Time devoted to crafts

Type of school	Time devoted to craft per week (in hours)					
	Upto 1 hr.	1.1- 3.0	3.1- 5.0	5.1- 7.0	More than 7 hrs.	Total
Primary	14 140 7.60	79 868 42.92	58 049 31.20	20 386 10.96	13 623 7.32	186 066 100.00
Middle	2 884 8.12	12 866 36.22	8 550 24.07	4 366 12.29	6 855 19.30	35 521 100.00
Secondary	1 005 8.24	5 090 41.72	2 309 18.93	1 342 11.00	2 454 20.11	12 200 100.00
Higher secondary	459 7.76	2 369 40.06	1 019 17.23	796 13.46	1 271 21.49	5 914 100.00
Total	18 488 7.71	100 193 41.80	69 927 29.17	26 890 11.22	24 203 10.10	239 701 100.00

Time devoted per week (Table 12) to various crafts varies from less than an hour to more than seven hours per week. In India, in 7.71% cases, the time devoted to teaching of crafts, is up to one hour, in 10.10% cases time devoted is more than seven hours and in 70.97% cases time devoted varies from 1.1 to 5.0 hours. In primary schools, in 74.12% cases time devoted varies from 1.1 to 5.0 hours. In middle schools, in 60.27% cases time devoted to teaching of crafts, varies from 3.1 to 5.0 hours and in 19.30% cases time devoted is more than 7 hours. In secondary schools in 60.65% cases time devoted varies from 1.1 to 5.0 hours and in 20.11% cases it is more than seven hours. In higher secondary schools, Intermediate/Junior Colleges, in 57.29% cases time devoted varies from 1.1 to 5.0 hours and in 21.49% cases, time devoted is more than 7 hours.

Twenty-eight thousand six hundred and twenty-two schools in India constituting 4.86% of the schools having the teaching of crafts in them, have a separate teacher for each craft. Out of these, 19,876 are located in the rural areas and 8,746 are in the urban areas.

Twenty thousand five hundred and eighty six schools in India, constituting 3.49% of the schools having the

teaching of crafts in them, claim to have adequate equipment for teaching of crafts. Out of these, 13,741 schools are in the rural areas and 6,845 are in the urban areas.

Workshops

Five thousand three hundred and eighty schools constituting 0.91% of total number of schools in India have workshops for teaching crafts and for work-experience activities. Out of these, 3,513 are located in the rural areas and 1,857 are in the urban areas. Seven hundred and twenty primary schools, 3,480 middle schools, 809 secondary schools and 361 higher secondary schools and Intermediate Colleges, have workshop facility in them.

A very small proportion of schools having work-experience programmes or teaching of crafts, has a workshop facility in them. Workshop facilities for agriculture, book binding, electrical and mechanical repairs, food preparation and preservation, gardening, cane and bamboo work, plastic work, needle work, clay work and spinning and weaving, etc. are available in a few schools. In respect of 3,185 workshops, schools claim that the workshop area is sufficient in terms of strength of students and the schools also claim that 2,262 workshops are adequately equipped.

PART II

A. Lok Bharati, Sanosra (District Bhavnagar)¹

Historical background

Lok Bharati in Mangrol Taluka, District Bhavnagar was established in May 1953 as a manifestation of the pulsating ambition of *Sarvodya* workers and rural educators to regenerate the village life. It has taken roots in the soil prepared by post-Basic schools in Bhavnagar district.

Objectives

Lok Bharati aims at carrying out experiments in the field of rural higher education by bringing out the latent powers of the rural society through education compatible with the Indian culture. It also aims at providing research and extension services for the benefit of the people of the area. It seeks to enable the students to live a fuller life by providing a synthesis of physical sciences and spiritual knowledge.

Nature of the Organization

Lok Bharati runs a number of institutions. One of them is the Lok Seva Mahavidyalaya which is a College of Rural Higher Education offering a course of four years' duration. Candidates successfully completing the course are awarded the Degree of Bachelor of Rural Studies (BRS) by the Saurashtra University.

Lok Bharati has been conducting a two-year certificate course in Agricultural Sciences. It has been recognized as one of the Rural Higher Institutes according to the Shrimali Committee's Report. Agriculture and Animal Husbandry are the main subjects in this course.

Lok Bharati also runs a Basic Training College for teachers. Students who have passed the S.S.C. Examination undergo training for one year, while those who have passed the middle school examination undergo a two-year course.

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1. *Educational Innovations in India, some experiments*, National Staff College for Educational Planners and Administrators, New Delhi (1974). 311 p.

Special features

Lok Bharati is a residential institution. No day scholars are admitted. This places the institution in an advantageous position in many respects. Curriculum has been evolved through experimentation. No outside agency such as the State Government or any University has thrust its curriculum on the institution.

Students are not required to pay any fees. However, they have to put in manual work. Boys have to put in 400 hours of manual labour while girls have to put in 350 hours of manual work per year. The quality of manual work is also taken into consideration. A student must earn Rs.80 in the form of manual labour. This manual work is accepted in lieu of the tuition fee. Students also earn some money for themselves by working on the farms.

It is a co-educational institution. Boys and girls can mix freely while engaged in various activities. Students get experience in social service during the period of their training. Humanities are also taught along with specialized subjects such as agriculture or animal husbandry. The institution undertakes experiments and supplies good hybrid varieties of seeds particularly cotton and millet to the local people.

Finance

The institution earns a net profit of about Rs.100,000 per annum from agriculture. The State Government gives a block grant of Rs.80,000 per year and the Central Government gives a grant of Rs.20,000 per year. The total expenditure is of the order of Rs.200,000. The institution mainly depends on the agricultural produce from its own farms.

Routine programmes

Lok Seva Mahavidyala: During the first year, the students undergo a foundation course. All students necessarily learn such subjects as Principles of Agriculture, Rural Education, Village and Cottage Industries, etc. They also learn humanities. Students select the courses of their choice during the second year, namely, Agriculture, Rural Reconstruction or Lokshiksha (Rural Education). This continues for 2½ years. During the last term, students are required to do actual field-work in the surrounding areas

Combining education and work

and rural work centres such as dairies, horticulture centres, etc.

Rural Institute: The Rural Institute conducts a two-year certificate course in Agriculture Science. The main subjects are Agriculture and Animal husbandry. Extension, rural crafts and humanities also have a place in the curriculum.

A number of programmes are undertaken through extension activities. Ready-made solutions are not offered. The emphasis is on making people understand the root causes of their own problems and helping them to find possible solutions. Extension activities include the following:

- Improvement of agriculture: providing better seeds; showing methods for increasing the yield; installing cow-dung gas plants; analysing samples of soil, water and fertilizers.

- Animal husbandry and dairying: providing veterinary service; rearing and supplying pedigree bulls to villages; encouraging good practices of animal keeping; arranging cattle-shows and competitions.

- Cultural activities: organizing fairs; holding folk-dance competitions; organizing farmers' camps and conferences; holding discussions and seminars; farming co-operatives for milk marketing and building construction etc.

Community participation

Every evening students and teachers join in the community prayer in a spacious and tastefully decorated library hall. The text of the prayer contains verses from the *Upanishads* and the *Bhagvad Gita* and other scriptures. Joining in the prayer, however, is not obligatory. One can do some other work during the prayer time, if one chooses to. This shows that there is no regimentation and the students are allowed a reasonable degree of freedom of action.

Boys and girls participate actively in the seasonal festivals held in the neighbouring villages, dine with the villagers, put up stalls in *melas*. The village people, in turn, attend the ceremonies and festivals of the institution. Another agency through which community participation is encouraged is the section of the institution which imparts training to Panchayat workers. Besides the village Sarpanch

Lok Bharati, Sanosra (District Bhavnagar)

and the members of the Panchayat, young men of neighbouring villages also come to Lok Bharati to attend the courses specially prepared for them and do active social work of various kinds.

Boys of the institution also go to the fields at the request of the farmers during the harvesting season and are engaged as labourers at reasonable wages. It appears that farmers prefer the services of the students of the institution to those of the ordinary labourers because the former are well-trained.

Scheduled caste students as well as those coming from the tribal areas, live in the same hostels with those coming from the higher strata of society and there are no inhibitions in this regard. Equal opportunities are available to everyone.

The institution with its various branches is nearly self-sufficient. For additional resources, it strives to augment its own agricultural production in the farms. Nevertheless, the villagers volunteer for relief work along with the students.

The impact of the institution on the community is manifested in various ways. The village people have done away with casteism. Inter-dining is common and a few cases of inter-caste marriages have also been reported. On the whole, there has been a significant change in the outlook of villagers. The institution has been laying emphasis on increasing the yield per acre. Discernible success has been achieved in this respect. Villagers bring their problems to the institution in the faith that proper guidance would be available. Students earn some amount of money through manual work. The labour of students is accepted with pleasure as it is to the advantage of the villagers.

The entire group of institutions is an integrated unit and works for complete education and reconstruction of the society on Sarvodaya lines. It has improved the working of panchayats, co-operatives, agricultural operations and cultural life of the people through various educational institutions belonging to formal and informal agencies of education.

What is worth appreciating is the change in the attitude to life and its values. All knowledge emanates from life situations and is distilled, modified and improved by first-

Combining education and work

hand experiences produced through the interaction of the society and the institutions. This leads to cross-fertilization of ideas. It is education for life, through life and throughout life.

Children of not only the poor families receive education in these institutions, but even rich farmers prefer to send their wards to these institutions rather than to other agricultural colleges because of intimate teacher-student relationship and because the education imparted here is correlated to actual life situations.

B. Rural Higher Education Institute, Birauli²

Historical background

The Rural Institute of Higher Education, Birauli is one of the 14 such institutes which came into being as a sequel to the recommendations of the Shrimali Committee. The University Education Commission headed by Dr. Radhakrishnan had made a strong recommendation for the expansion of facilities of higher education in rural areas consequent upon which a committee with Dr. K.L. Shrimali as Convenor was formed to draw up a scheme in regard to the setting up of Rural Institutes. The Sarvodaya College, Turki in District Muzaffarpur which was providing higher educational facilities to students passing from the post-basic schools was converted into a Rural Institute of Higher Education in 1956, and was recognized by the National Council of Rural Higher Education. Later, this Institute was shifted from Turki to its present position in Birauli in the District of Darbhanga. It is now situated there on a 60-acre plot of land.

The Institute at Birauli is situated in an ideal rural surroundings with Pusa Agricultural Research Centre, Tirhut College of Agriculture, Fodder Research Centre, Khadi and Gramodyog Institute, etc. in the vicinity. These institutions help and are, in turn, helped by this Rural Institute.

The specific objective of the Institute is to carry the results of the various investigations and researches to

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2. *Educational Innovations in India, some experiments*, National Staff College for Educational Planners and Administrators, New Delhi (1974). 311 p.

the very door of the villagers and to impart higher education to students from the neighbouring areas more suited to their environment so that they may not be tempted to migrate to towns.

The curriculum

The Institute runs a three-year Diploma course in Rural Services which is recognized as equivalent to B.A. degree by the Government of India, State Government, Union Public Service Commission and a majority of the universities. The Institute provides courses in English, Hindi (or Urdu), the Story of Civilization and Introduction to Rural Problems as core subjects. Besides, a student has to choose one of the three groups out of Public Administration, Co-operation and General Education. Every student at the end of the three-year course is required to submit a dissertation on some rural problems, such as panchayat administration, functioning of co-operative societies, agricultural programmes of the neighbouring villages, etc.

The students work intensively in the fields in the beginning of three crop seasons. They also disseminate knowledge about improved methods of agriculture to the farmers of nearby villages. The Institute has a youth peace corps which participated actively in the *gramdan* and *prakhanda* movements of Acharya Vinoba Bhave. Their work in regard to the flood relief and control has been very admirable. They also rendered yeoman's service in providing relief during the severe drought in the State in 1967. There has been no student unrest in this Institute even during the period of Bihar *Bandh* and other strikes. Although the Institute is not a residential one, a few students stay in the hostel. They do their own cooking without any dependence on servants. This enables them to maintain themselves with very little assistance from home.

The teachers form a contented lot. In addition to the salaries in the Bihar Government scale, they enjoy certain other facilities, such as free residential quarters, half-an-acre plot of land for agricultural purposes and certain other benefits. Teachers work in the plots allotted

3. It includes problems relating to rural economics, sociology, agriculture, engineering, health and sanitation.

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to them. Although they get very raw stuff in the form of students, they invest proper care and attention on them so that the Institute can take the credit for 80 per cent of students passing the examination. The few students who have gone out of this institution for pursuit of post-graduate studies in the universities have shown very good results and none of them has got a third class. Nearly 40 per cent of the students settle down in villages and pursue rural occupations.

Some of the distinguishing features of this institution are highlighted below:

- The Institute works in close co-operation with various educational and other institutions in the vicinity viz., Agricultural College, Dholi; Sugarcane Research Institute, Pusa; Production Centre, Birauli; etc.

- The students of the Institute have carried out various socio-economic surveys of the neighbouring areas, which have been of great help to other institutions in the area, e.g., Industries Research Project, Waini; Kasturaba Samarak Nidhi, Waini, etc. in devising suitable programmes for the development of the areas concerned.

- The staff and students of the Geography Department of the Institute studied the Survey of India topography map and land-use maps which were of great help to the Departmental authorities in flood control work.

- The students of the Institute have actively participated in gramdan, social service and extension work.

- Students have been cooking their own food and attending to other incidental work in the hostel.

- The Institute has adopted five villages in the neighbouring area for intensive extension work.

C. A Package Plan for Rural Development through Education (Madras)⁴

Background

The need for rural development has been keenly felt in a country like India where nearly 80 per cent of the

4. *Work and Learning, Joint Operational Study*; Unesco, Bangkok (1978). 70 p.

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population live in villages. A movement on a massive scale has to be launched to bring about a change in the life of the villagers.

The State Council for Educational Research and Training (SCERT), Tamil Nadu had launched an experimental project to bring about a qualitative improvement in the teachers of 50 schools in the St. Thomas Mount Panchayat Union Area. In one of the meetings held in connection with this project at the Teachers Centre, in the SCERT, a group of teachers evinced keen interest in rural development. This prompted the SCERT to formulate a Package Plan for rural development through education in which teachers would play a prominent role. This project was designed with the support of the Department of Education and in close collaboration with the various departments and agencies engaged in rural development.

This Programme aims at covering 50 villages in the St. Thomas Mount Panchayat Union area by launching it in 50 schools at the rate of one school from each village. The main agencies involved so far are the Department of Rural Development, Khadi and Village Board, Palm Gur and Marketing Federation, Department of Agriculture, Regional Directorate of Worker's Education, Co-operative Department, Department of Animal Husbandry, British Council and Corporation of Madras.

The financial requirements of the project are met by the State Government and other voluntary organizations. On completion of the Programme after extending it to all the 50 pilot schools, it will be evaluated. Based upon the findings of the evaluation report, the Programme is likely to be extended to other Panchayat Unions in the State.

Objectives

The Package Plan aims at:

- Improving the quality of the schools, the teachers and the pupils to make them more effective agents of development and in bringing about social changes in the villages;
- Helping the dropouts to acquire skills in craft-oriented education to enable them to learn and earn;
- Promoting education related to the actual needs and life situations of the people thereby making it more meaningful and relevant;

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- Exposing the pupils to the skills necessary to develop the untapped resources in the villages;
- Integrating and co-ordinating the approach and efforts of various departments using the school as the main agency; and
- Transferring appropriate technology to the villages.

Programme development and implementation

The execution of the Project has four phases which are mentioned below:

Phase I

Initial discussion with the Department of Rural Development and Local Administration based on the suggestions offered by some of the teachers for developing the rural areas and selection of project areas followed by study of technologies appropriate to the villages through discussion with various departments.

Phase II

Survey of literacy and felt needs of the villagers through administering questionnaires and interviews.

Phase III

Planning out curriculum, selection of schools, training of personnel and strengthening the activities taken up in collaboration with government and other various agencies.

Phase IV - Evaluation

Twenty-five schools have gone through these phases. It is proposed to consolidate the outcomes of these schools and extend the desirable inputs and processes to the remaining schools of the pilot programme.

The local teachers assess the felt needs of their respective villages in economic, social, cultural and educational spheres and chalk out suitable programmes for the development of the villages in co-operation with the SCERT personnel and other concerned departments. This strategy has made the teachers more committed to the Project. In this process suitable institutions and departments have been identified with respect to each village for participation. The Palm Gur Federation acts as a Resource Centre

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for imparting training to teachers, students and villagers who, in turn, train the other teachers, villagers, students and dropouts.

Training is being given to teachers and some villagers in the preparation of palmyra products, cosmetics, ink, soap making, coir work, hair oil, tooth powder, agar-bathi preservation of food articles, etc. These details have not been written out and distributed in the form of curriculum materials. However, some handouts have been prepared and distributed to the schools. In the preparation of the new curriculum for these adopted schools, experiences gained in similar programmes of the SCERT were used.

A number of work experience activities were being undertaken by the villagers and pupils.

The Programme has made it possible for various departments like the Health, Agriculture Co-operative etc. to participate and this has tended to enhance the knowledge of the teachers in relation to specified areas. Similar quality improvement is noticed in palm leaf allied crafts and teaching of new science and mathematics.

The Programme has also made it possible for parents to participate along with their children in out-of-school activities to acquire craft-oriented education.

Villagers come to the school for learning skills. This has enabled them to make use of the school as a source of learning also. Even pupils who had left the school are found availing themselves of this opportunity for further improvement. Thus, the main approach of this Programme has been, to make the school a centre for rural development by acting as a link between the community and learning. This linkage between formal and non-formal learning is also useful in the following other areas envisaged:

- Craft-based learning material which will give children an opportunity to learn as they learn.
- Adult literacy through teaching of crafts where the experience of the Package Plan will be very helpful.

Analysis

The Package Plan has a very wide range of rural development potential covering economic activities, health,

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family planning, nutrition education, environmental sanitation, etc. The main focus of the Programme is to enable the community to utilize the local resources, such as the many uses to which the palmyra was put to. The Package Plan, by providing economic activities and education to the villagers, enables them to stay and work in their own community. This will help in bringing about an improvement in the quality of life and economic standards of the people.

Innovative features

- The idea of taking one whole administrative unit - the Panchayat Union that is comprised of 50 villages and selecting one school as the agent of change for a viable community is an innovative feature of the Programme.

- The parents work and learn along with their children after school hours in the process of learning new skills. This attempts to link up out-of-school learning with school learning thereby creating a healthy atmosphere for rural education. Though the link between work activities of the pupils and their classroom learning and vice-versa is not at present clearly visible, there is ample scope for it in this Programme.

- The Package Plan brings the school dropouts and past pupils together and gives them an opportunity for self-employment or an opportunity for earning while learning and this is another innovative feature of the Programme.

- The Package Plan incidentally generates development of the existing resources available in each village and this is a very valuable spin-off, a very important component that goes in for economic development.

- The diffusion of the experiences and the knowledge about healthy living, etc. through the pupils to the villagers.

D. The Rural University Project (Ahmedabad)⁵

Background

The genesis of the Rural University which is sponsored by the Indian Institute of Management, Ahmedabad, can

5. *Work and Learning, Joint Operational Study*, Unesco, Bangkok (1978). 70 p.

be traced to a profound concern of the society about the isolation of educational institutions from the stream of national development in general and the irrelevance of educational process for solving various social problems in particular. But more serious were the doubts about the economic value of education. They were raised by the nature of massive school dropouts and widespread unemployment and under-employment among the educated people. Moreover, in the State of Rajasthan, statistics also indicated a relatively poor enrolment in rural areas (43 per cent) as compared to urban areas (74 per cent) in the 6-11 year age group. The alarming wastage, with two-thirds of the students enrolled dropping out by Standard V, made the situation worse.

Sensitised by these issues, a small group of people of the Indian Institute of Management, Ahmedabad were in a mood to question the assumptions behind the formal school system. They wanted to experiment with the integration of rural development and education by using learning as a basis for development and conversely using development as a learning resource. There was no attempt to set up an alternative education system but to have a non-formal strategy complementing the existing formal system and intimately linked with it. This is how the Rural University started. It has no campus. It does not grant degrees. It is an innovatory idea, as challenging as that of the barefoot doctors.

Objectives

The main objectives of the Rural University are:

- To bring about a universality of learning by making it free from the bonds of space and time;
- To help in the identification and utilization of learning spaces and opportunities particularly in the rural areas of India;
- To develop self-reliance among rural people in managing their own affairs;
- To generate rural development through the instrumentation of educated persons;

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- To provide a link between the development activities and the formal education system through the school teacher so as to make education an agent of development and development of learning; and

- To establish inter-group and intra-group relationship among groups of villagers, teachers, local government officials and the school system for the purpose of rural development.

Self-help and self-reliance are basic ideas of the Rural University. As far as possible all activities are based on local physical resources. The capital intensity in each activity is kept low. Not much financial outlay would be required for the project. The number of trained people would be the main constraint. The education system is expected to provide the necessary skills and expertise, wherever possible, but considerable training will have to be organized with the help of "idea men".

The Rural University is fundamentally interdisciplinary in character and depends on the co-operation of a number of agencies. The National Institute of Design, Ahmedabad, was associated with it right from the stage of initial survey. They helped in the design, quality control and marketing of products of the Rural University. Bank of Baroda, Physical Research Laboratory, Ahmedabad, and the Education Department of Rajasthan are also active collaborators. But the key figure is the Block Development Officer and his staff who are continuously in touch with the villagers and know what is happening in the villages.

Despite this co-operation and collaboration from the various agencies, the idea of the Rural University did encounter initial apathy and disbelief. This happened because of the social dynamics of villagers. As a first step, the experimenters decided to break resistance through attitudinal change. This was done by keeping apart, the processes of legitimization and implementation. Within the block the legitimization of overall experiment and the presence of experimenters were achieved through Block Administration and "Panchayat Samiti" (Local Elected Body). The meetings were organized through them. For implementation, the initiative was given to the persons concerned.

Programme development and implementation

Planning and organization

The basic criteria on which the activities of the Rural University have been planned are: extensibility of activity to other spheres like educational, social and managerial; potentiality to make villagers self-dependent; and increasing the initiative among the villagers.

The operational planning of the Rural University is mostly informal and evolutionary. Problems are solved as they are encountered. The experimenters learn from their mistakes. An attempt is made to set up a relationship of credibility and trust and it is assumed that high expectation will give rise to high desire to perform.

Approaches

A two-tier approach is used in achieving the objectives of the Rural University.

- Learning spaces and opportunities are centred round some economic activities in the villages, but they are non-formal in character.

- Non-formal learning is linked with the formal school system through the teacher who is expected to play an important role.

The economic activity selected by the villagers themselves is usually aimed at increasing the earning capacity of those belonging to the low income group. Relevant learning is built around it. For example, villagers would learn how to weave the wool-cum-cotton carpet and also the economics of raw material mixes. They learn how to do their costing and accounting, how to set aside money to repay the bank loan, to provide maintenance and depreciation, etc.

Although there is a possibility of taking many activities in the Indian villages, initially the effort has been concentrated largely on the following activities: weaving; spinning; leather work; cultivation of vegetables; and animal husbandry.

The basic idea of the Rural University is to integrate rural education and rural development. It aims at re-interpreting the role of education in terms of the totality of learning of individuals and communities. This is done in a phased manner. In the early phases, the Rural

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University seeks to create new links between the teachers and the rest of the system, viz. the village, the bank, the institutions of science and technology, the markets and even the government servants and their departments. It envisages a new role for teachers. But more importantly the whole community is expected to act in concert.

Project activities

To start with, the idea of the Rural University is being tried out in Jawaja Block, in Rajasthan. Some of the statistics about this block are as follows:

Area	28,400 sq.km.
Population	78,800
Number of villages	190
Number of primary schools	95
Number of secondary schools	18
Number of higher secondary schools	2

After the initial survey, 11 villages have been selected as the foci. A few more villages on the periphery of these villages are involved in this work. For each of these focal villages, a task force has been organized to help the villagers start their own activities and to provide support that might be needed by them. As far as the involvement of teachers is concerned, although about 80 teachers would be aware of this programme, only three of them seem to be actively involved in it.

The Rural University does not have a formal curriculum. As such, nothing has been done for curriculum development or material development. It seems to be based on a psycho-sociological approach to the economic problems of rural areas - a sort of management technique to rural development. An important part, therefore, is the training of resource persons which has been undertaken so as to have an in-built multiplier effect.

The school teacher plays a key role in the Rural University in the establishment of a linkage between non-formal learning and the formal school system. He will not only get feedback for more realistic teaching but could also be instrumental in curriculum reconstruction bringing school closer to the community and making school education more relevant to the needs of the society. But he has only a facilitating role and is not the main agent of rural development.

Analysis

An analysis of the objectives of the Rural University shows that it offers a new approach to learning and rural development with a wide potential of relating work and learning in a totally non-formal setting. It has been based on the use of work and rural development as a learning resource. But it does not pretend to carry the element of work to formal schooling. The objectives are conceived on a philosophical plane. But they seem to be concerned more with the sociology and psychology of rural development than the pedagogy of it.

The use of management techniques has so far been the preserve of big industry and business. The Rural University extends this use of the rural economy with a view to making it more efficient and self-reliant. Resources available in the block have been assessed. A process of thinking among the villagers to use these resources has also been initiated.

Innovative features

The Rural University has many innovative features, some of which are the following:

- It envisages a new role for education, and integration between education and rural development;
- It makes economic activity the centre of education in rural areas;
- Rural development is aimed at through means which are not capital intensive so that villagers do not feel handicapped because of lack of capital;
- The process of development is supposed to begin from within. Leadership role remains with the villagers themselves;
- There is an in-built element of flexibility. Formative evaluation is undertaken and methodology improved continuously; and
- The basic element is the mutuality of interest and co-operative nature of effort on the part of all those interested in this venture.

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Socialist Republic of the Union of Burma

India

Malaysia

Nepal

New Zealand

Pakistan

Philippines

Singapore

Thailand

Socialist Republic of Viet Nam (in French)